

CLAIMS

What is claimed is:

- 1 1. A method for forwarding data packets to one of a plurality of servers comprising:
 - 2 receiving a data packet from a source at a data packet forwarding device having a
 - 3 plurality of ports;
 - 4 performing a hashing function using a unique component of the data packet as a seed
 - 5 value for the hash;
 - 6 generating a hash value using the hashing function;
 - 7 looking up a table for address information of one of the plurality of servers using the
 - 8 hashed value as an index to the table; and
 - 9 forwarding the data packet to a server using the address information obtained from the
 - 10 table.
- 1 2. The method of claim 1, wherein forwarding the data packet to a server
- 2 corresponding to the address comprises forwarding subsequent data packets from the
- 3 source to the server using the hashing function.
- 1 3. The method of claim 1, wherein generating a hash value using the hashing
- 2 function comprises generating a hash value using at least one parameter from a group
- 3 consisting of a Transmission Control Protocol source port number, Transmission Control

4 Protocol destination port number, an Internet Protocol (hereafter IP) source address and
5 an IP destination address in the hash function.

1 4. The method of claim 1, wherein forwarding the data packet to a server using the
2 address information obtained from the table comprises searching a table for the address
3 information of the server using the hash value generated by the hashing function and
4 forwarding the data packet to the server.

1 5. An article of manufacture comprising:
2 a machine-accessible medium including instructions, that when executed
3 by a machine, cause said machine to perform operations comprising
4 receiving a data packet from a source at a data packet forwarding device having a
5 plurality of ports;
6 performing a hashing function using a unique component of the data packet as a seed
7 value for the hash;
8 generating a hash value using the hashing function;
9 looking up a table for address information of one of the plurality of servers using the
10 hashed value as an index to the table; and
11 forwarding the data packet to a server using the address information obtained from the
12 table.

1 6. The article of manufacture of claim 5, wherein said machine-accessible medium
2 further includes instructions that when executed by the machine, cause the machine to
3 send subsequent data packets from the source to the server using the hash function.

1 7. The article of manufacture of claim 5, wherein said machine-accessible medium
2 further includes instructions that when executed by the machine, cause the machine to
3 generate a hash value using at least one parameter from a group consisting of a
4 Transmission Control Protocol source port number, Transmission Control Protocol
5 destination port number, an Internet Protocol (hereafter IP) source address and an IP
6 destination address in the hashing function.

1 8. The article of manufacture of claim 5, wherein said instructions for forwarding
2 the data packet to a server using the address information obtained from the table, includes
3 further instructions to cause the machine to search the table for the address information of
4 the server using the hashed value generated by the hashing function and to forward the
5 data packet to the server.

1 9. An apparatus comprising:
2 means for receiving a data packet from a source at a data packet forwarding device
3 having a plurality of ports;
4 means for performing a hashing function using a unique component of the data packet as
5 a seed value for the hash;
6 means for generating a hash value using the hashing function;

7 means for looking up a table for address information of one of the plurality of servers
8 using the hashed value as an index to the table; and
9 means for forwarding the data packet to a server using the address information obtained
10 from the table.

1 10. The apparatus of claim 9, wherein means for forwarding the data packet to a
2 server corresponding to the address comprises means for forwarding subsequent data
3 packets from the source to the server using the hashing function.

1 11. The apparatus of claim 9, wherein means for generating a hash value using the
2 hashing function comprises means for generating a hash value using at least one
3 parameter from a group consisting of a Transmission Control Protocol source port
4 number, Transmission Control Protocol destination port number, an Internet Protocol
5 (hereafter IP) source address and an IP destination address in the hash function.

1 12. The apparatus of claim 9, wherein means for forwarding the data packet to a
2 server using the address information obtained from the table comprises means for
3 searching a table for the address information of the server using the hash value generated
4 by the hashing function and forwarding the data packet to the server.